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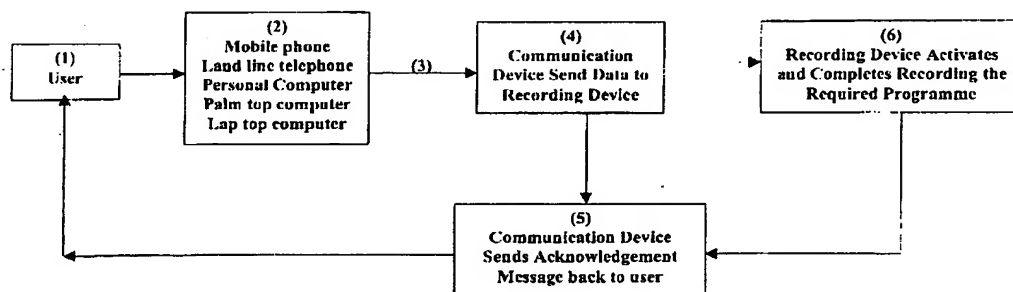
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EP 0793225 A2 JP 620247660 A
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(54) Abstract Title: Remotely setting a recording device using e.g. a mobile phone

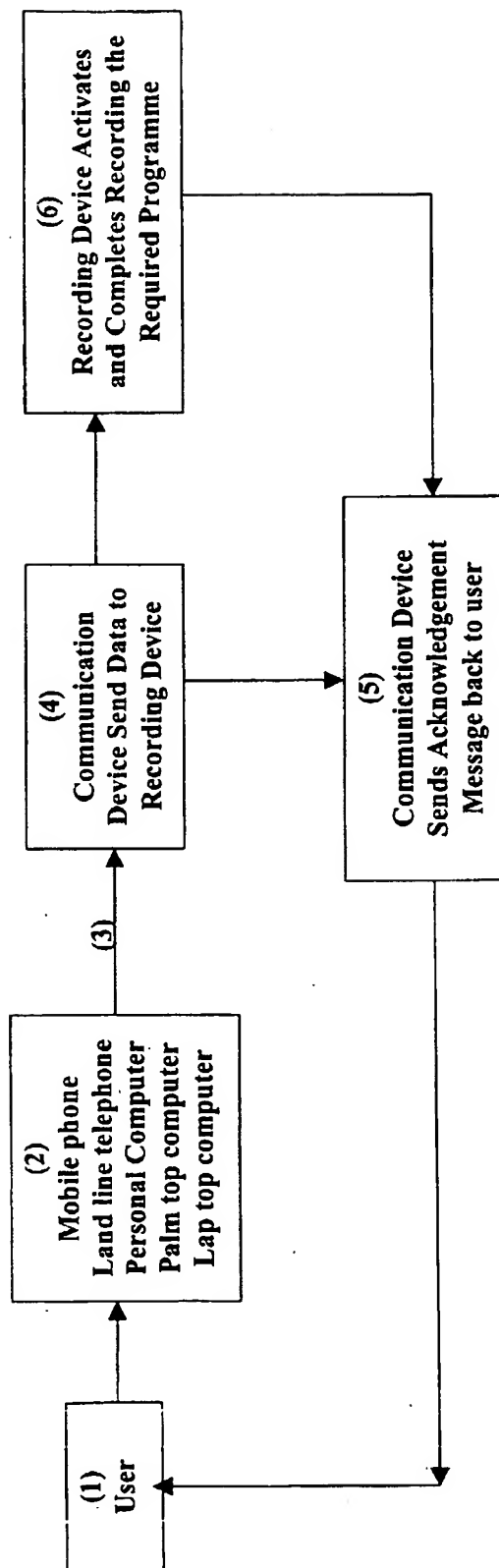
(57) A video recording system and communication device which provides its user with the capability to record television programmes, spontaneously, while away from their home. The communication device 4 could be manufactured into DVD recorders or video-cassette recorders or the like. Alternatively it could be placed in close proximity to existing recording devices in order to activate them at the required times. It will be capable of receiving instruction from a variety of media, 2, such as landline telephone, mobile telephone, personal computer, palm top computer etc. It will also be capable of storing information, activating instructions at the correct time to record the user's chosen television programme(s), 6. The communication device will also be able to send confirmation messages to the user, 5, in order to acknowledge receipt of their instructions(s) and to confirm their instruction has been successfully executed.

Figure 1



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Figure 1



A VIDEO RECORDING SYSTEM AND DEVICE

Technical Field

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The present invention relates to a technological development in the home entertainment industry. In particular remotely setting a recording device such as a DVD recorder or conventional video to record video broadcasts while away from their home.

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Background of the Invention

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This invention is an innovative development, making use of existing and new technology to create a completely new facility for its user. Currently no such facility exists for people to spontaneously set their video recording devices such as digital versatile disc (DVD) recorders or videocassette recorders (VCRs) while on the move, away from their home.

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It is widely accepted existing hand held remote controls are currently capable of setting timers on DVD recorders and VCRs from a reasonably close distance to the recording machine. Currently no such facility exists for people to record programmes impulsively while on the move away from their homes and their recording machines.

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The following invention provides its user with a communication device enabling the user to record video broadcasts of their choice whilst being substantial distances from their recording devices. This negates the necessity to pre-set the recording device before leaving their home. This system will enable the user to record television programmes from anywhere in the world at any time.

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Summary of the Invention

According to one aspect of the present invention there is provided a claim (claim 1) that the recording system will comprise of the following:

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- A video recording device
- A communication device for controlling the video recording device

10 The communication device will be capable of controlling the video recording device to record video broadcasts, it will be able to set the timer mechanism of the recording device by the user relaying an instruction remotely to record a video broadcasts of choice.

15 In one embodiment of the present invention the user will be capable of sending instructions to the communication device. The communication device will instruct the user's recording device to record chosen video broadcasts (claim 2).

20 In another embodiment of claim 1 and 2 (claim 3), the communication device will on receipt of recording instructions from a user be capable of programming the timer on the user's recording device to record selected video broadcasts.

25 This system according to any one of claims 1 to 3 (claim 4), wherein the communication device is contained in the recording device as an integral part of the recording machine, instructions being received directly from the user. Alternatively (claim 5) wherein the communication device is external to the recording device and communicates with the recording device over a data link.

30 Alternatively to claims 4 and 5 (claim 6) wherein the communication device is located externally and communicates with the recording device over a wireless data link such as an infrared data link.

In accordance with claim 5 (claim 7) wherein the data link is a fixed line data link such as an Asymmetric Digital Subscriber Line (ADSL) or other broadband communication means.

- 5 The communication device according to any one of the preceding claims is capable of receiving instructions over a mobile telephone network, a fixed telephone line and/or other fixed land-line network (claim 8).

10 This system further comprises (claim 9) a mobile network device such as a mobile telephone from which instructions are transmitted over a mobile telephone network to the communication device. The system according to claim 9, wherein a user communicates with the communication device using a keypad and/or voice commands via a mobile telephone (claim 10).

- 15 A system according to claim 9, wherein communication between the mobile network device and the communication device is by short message service (SMS) (claim 11).

20 The system according to claim 8, wherein communication between a personal computer and the communication device is via e-mail or across the Internet with the user accessing a dedicated web site. From the web site it is intended the user would select a video broadcast and send instructions to the communication device direct from the web site to the communication device in order to record their selected video broadcast (claim 12).

- 25 A system according to any one of the preceding claims, wherein the communication device is adapted to receive an instruction from a user (claim 13), the instruction comprising of:

- 30 ☐ time and date information; and
☐ an associated video broadcast channel,

such that a specific video broadcast from a television network can be recorded.

The system according to any one of claims 1 to 13, wherein the communication device is able to receive coded data (numerical or otherwise) from a user which corresponds to a specific video broadcast (claim 14). This data would be translated
5 in to programme start and finish times.

In addition to the above a system according to any one of the preceding claims, wherein the communication device comprises voice recognition means to interpret voice commands (claim 15).

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The system according to any one of the preceding claims will ensure the communication device transmits an acknowledgement message to the user on receipt of recording instructions, on commencement of recording by the recording device and/or on cessation of recording by the recording device (claim 16).

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A system according to any one of the preceding claims, wherein the communication device transmits a status message to the user on commencement of recording of a video broadcast (claim 17).

20 A system according to any one of the preceding claims, wherein the video recording device is a digital versatile disc (DVD) recorder, a video cassette recorder (VCR) or other hard disk recorder (claim 18).

A system according to any one of claims 2 to 18 wherein the video broadcasts are
25 television broadcasts.

A method of remotely controlling a video recording device, comprising of remotely sending instructions to a communication device located in or near the recording device in the user's home (claim 20).

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A method according to claim 19, wherein the instructions are recording instructions to instruct the video recording device to record television broadcasts (claim 19).

A method according to claim 20 or claim 22, wherein the instructions are sent from a mobile network device, such as a mobile telephone. According to any one of the preceding claims, wherein the video recording device is a digital versatile disc (DVD) recorder, a video cassette recorder (VCR) or a hard disk recorder (claim 23).

The communication device is a means for controlling the video recording device by receiving instructions from a remote user and relaying those instructions to the video recording device (claim 24). A communication device according to claim 24, wherein the communication device relays recording instructions to instruct the video recording device to record broadcasts chosen and instructed by the user.

A communication device according to claims 24 or 25, wherein the communication device relays acknowledgement messages to the remote user (Claim 26).

A communication device according to claim 27, wherein the user sends instructions and receives acknowledgement messages from the communication device via a mobile telephone network device, such as a mobile telephone.

A video recording device according to any one of claims 24 to 27, wherein the video recording device is a digital versatile disc (DVD) recorder, a video cassette recorder (VCR) or a hard disk recorder (claim 28).

The communication device according to preceding claims will be capable of storing a number of instructions to allow the user to record more than one video broadcast consecutively (claim 29).

Brief Description of Attached Drawing

The present invention is now described, with reference to the accompanying drawing, in which figure 1 shows how, in principle, the communication device and

recording system works. It illustrates the variety of sources from which an instruction could be transmitted from and acknowledged back to.

5 Numerical indicators have been given to the various anticipated steps which a user would need to go through in order to record a programme or video broadcast while away from their home. Please refer to figure 1 as follows:

- 1) Indicates the prospective user who remembers they wish to record a video broadcast while away from their home.
- 10 2) Demonstrates the various methods of communication available to the user for sending an instruction to their communication device to record their chosen video broadcast.
- 3) Indicates the instruction being transmitted to the communication device.
- 4) Represents the communication device accepting the instruction from the user and relaying the relevant date and time information to the recording device.
- 15 5) Shows the communication device sending an acknowledgement message back to the user acknowledging receipt of their instruction and/or commencement or cessation of recording by the recording device.
- 6) Represents the activation and cessation of the recording device to record the selected video broadcast at the correct programme start and finish times.
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Detailed Description of the Invention

25 The term 'video broadcast' should be taken to mean the broadcasting of moving images with or without associated audio.

'Recording device' should be taken to mean any recording device for recording moving images such as a DVD recorder, a video-cassette recorder or other hard disk recorder.

30

Referring to figure 1, this communication device is a means through which the user is able to activate the in-built timers on their video recording devices such as DVD

recorders, VCR's or hard disk recorders whilst being a substantial distance away from the recording device.

The communication device could be manufactured in to new video recording
5 devices or it is attached to existing recording devices or placed in close proximity to
existing recording devices. By using wireless technology or a fixed line such as an
Asymmetric Digital Subscriber Line (ADSL) it will be possible for the user to
record selected programme(s). This communication device will enable the user to
activate their video recording device to record chosen television programmes while
10 away from their home.

It is intended that the user will select a programme of his or her choice from a
programme schedule viewed via the internet on their mobile telephone, personal
computer, palm top computer or alternatively via traditional media such as
15 newspapers and magazines.

The user will be able to select a programme from a programme schedule and be able
to record selected video broadcasts by sending an instruction to their communication
device located in their home which will interpret and in turn instruct the video
20 recording device.

The user's instruction could be sent in the form of a text message from their mobile
phone handset or e-mail from a personal computer/palm top computer or a verbal
instruction to instruct a particular programme to be recorded. This will make use of
25 existing communication technology and networks to transmit the required message.

The instruction could be a coded message using the existing 'Videoplus' system or
similar coded system. The instruction will be received, stored and acted upon by the
communication device referred to above. The communication device will essentially
30 set the timer on the users recording device by transmitting the relevant data. As
previously mentioned this communication device will be located either in the

recording device or attached to the side of the recording device or be located somewhere in close proximity to the recording device.

The communication device could also be fitted with voice recognition technology.

- 5 This will enable the user to simply call up from their mobile telephone or landline telephone and verbally instruct their communication device to activate their recording device to record their chosen video broadcasts.

- 10 The communication device will be able to read, understand and store information in a variety of forms. It will be capable of storing a number of instructions by the use of a SIM card or similar technology to store and relay the required information. The communication device will then activate instructions at the correct time(s) to record the user's selected video broadcasts.

- 15 The user could be anywhere in the world when they decide to record a video broadcast. By simply accessing and selecting from a video broadcast programme schedule viewed over the internet or via traditional media they will be able to select and record video broadcasts they would have otherwise missed such as live sporting events, films, soap operas etc. Video broadcasts from all digital, cable and terrestrial
20 television or broadcasts over the internet could be recorded.

- Figure 1 shows the principle workings of the communication device having the capability to acknowledge instructions sent by the user by sending a message back either immediately or alternatively at a later time once the selected programme has
25 been successfully recorded.

It will of course be understood that the present invention has been described above purely by way of example, and modifications of detail can be made within the scope of the invention.

CLAIMS

1. A video recording system, comprising:
 - 5 a) a video recording device; and
 - b) a communication device for controlling the video recording device,

wherein a user remote from the communication device can communicate with the communication device to control the recording device.
- 10 2. A system according to claim 1, wherein the communication device instructs the video recording device to record a video broadcast.
- 15 3. A system according to claim 1 and 2, wherein the communication device, on receipt of recording instructions from a user, programmes the video recording device to record a chosen video broadcast.
- 20 4. A system according to any one of claims 1 to 3, wherein the communication device is contained in the video-recording device.
5. A system according to any one of claims 1 to 3, wherein the communication device is external to the video-recording device and communicates with the video-recording device over a data link.
- 25 6. A system according to claim 5, wherein the data link is a wireless data link, such as an infra-red data link.
- 30 7. A system according to claim 5, wherein the data link is a fixed line data link, such as an Asymmetric Digital Subscriber Line (ADSL) or other broadband communication means.

8. A system according to any one of the preceding claims, wherein the communication device receives instructions over a mobile network, a fixed telephone line and/or other fixed line network.
- 5 9. A system according to any one of the preceding claims, further comprising a mobile network device, such as a mobile telephone, which transmits instructions to the communication device.
- 10 10. A system according to claim 9, wherein a user communicates with the communication device using a keypad and/or voice commands on a mobile telephone.
- 15 11. A system according to claim 9, wherein communication between the mobile network device and the communication device is by Short Message Service (SMS).
- 20 12. A system according to claim 8, wherein communication between a personal computer and the communication device is via e-mail or across the Internet with the user accessing a dedicated web site from which control of the communication device could be gained.
- 25 13. A system according to any one of the preceding claims, wherein the communication device is adapted to receive an instruction from a user, the instruction comprising:
☐ time and date information; and
☐ an associated video broadcast channel,
such that a specific video broadcast from a video broadcast can be recorded.
- 30 14. A system according to any one of claims 1 to 13, wherein the communication device is adapted to receive coded data, which corresponds to a specific video broadcast, the coded data being translated by the communication device into a start time and a finish time for the specific video broadcast.

15. A system according to any one of the preceding claims, wherein the communication device comprises voice recognition means to interpret voice commands.
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16. A system according to any one of the preceding claims, wherein the communication device transmits an acknowledgement message to the user on receipt of recording instructions, on commencement of recording by the recording device and/or on cessation of recording by the recording device.
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17. A system according to any one of the preceding claims, wherein the communication device transmits a status message to the user on commencement of recording of a video broadcast.
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18. A system according to any one of the preceding claims, wherein the video recording device is a digital versatile disc (DVD) recorder, a video cassette recorder (VCR) or a hard disk recorder.
19. A system according to any one of claims 2 to 18, wherein the video broadcasts are television broadcasts.
- 20
20. A method of remotely controlling a video-recording device, comprising remotely sending instructions to a communication device located in or near the video-recording device.
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21. A method according to claim 20, wherein the instructions are recording instructions to instruct the video recording device to record video broadcasts.
22. A method according to claim 20 or claim 21, wherein the instructions are sent from a mobile network device, such as a mobile telephone.
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23. A method according to any one of claims 20 to 22, wherein the video recording device is a digital versatile disc (DVD) recorder, a video cassette recorder (VCR) or a hard disk recorder.
- 5 24. A communication device for controlling a video broadcast recording device by receiving instructions from a remote user and relaying those instructions to the video-recording device.
- 10 25. A communication device according to claim 24, wherein the device relays recording instructions to instruct the video recording device to record video broadcasts.
- 15 26. A communication device according to claim 24 or claim 25, wherein the device relays acknowledgement messages from the communication device to the remote user.
- 20 27. A communication device according to claim 26, wherein the user sends instructions and receives acknowledgement messages from the communication device via a mobile telephone network device, such as a mobile telephone.
- 25 28. A video recording device according to any one of claims 24 to 27, wherein the video recording device is a digital versatile disc (DVD) recorder, a video cassette recorder (VCR) or a hard disk recorder.
29. A device according to any one of the preceding claims, wherein the communication device can store a plurality of instructions for recording one or more video broadcasts.
- 30 30. A system substantially as herein before described with reference to the accompanying drawing.

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31. A method substantially as hereinbefore described with reference to the accompanying drawing.
32. A device substantially as hereinbefore described with reference to the accompanying drawing.
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INVESTOR IN PEOPLE

Application No: GB 0210781.1
Claims searched: 1-32

Examiner: Melanie Gee
Date of search: 20 December 2002

Patents Act 1977 : Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X	1-3, 5, 6-10, 12-14, 18-21, 23-25, 28 & 29	US 20020041667 A1 (GAMBLE), see paras. 32-36, 71-72, and 102.
X	1-3, 5, 6, 8, 13, 14, 18-21, 23-25, 28	EP 0793225 A2 (LUCENT TECHNOLOGIES), see whole document.
X	1-3, 5, 6, 8, 16, 18, 21, 23-26, 28 & 29	JP 620247660 A (SHARP), see abstract.
X	1-4, 8-10, 18-25, 28 & 29	EP 1152609 A1 (SAGEM), see abstract.
X	1-3, 5, 6, 15, 18-21, 23-25, 28 & 29	GB 2220290 A (HARVEY), see whole document.

Categories:

X Document indicating lack of novelty or inventive step	A Document indicating technological background and/or state of the art.
Y Document indicating lack of inventive step if combined with one or more other documents of same category.	P Document published on or after the declared priority date but before the filing date of this invention.
& Member of the same patent family	E Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^T:

Worldwide search of patent documents classified in the following areas of the IPC^T:

The following online and other databases have been used in the preparation of this search report:

WPI, EPODOC, PAJ, Full text patent databases